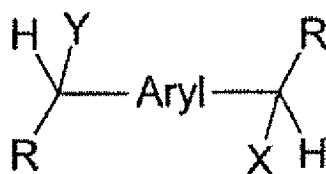


### AMENDMENTS TO THE CLAIMS

1. (Currently amended) A process for preparing poly(arylenevinylenes), which have a solubility of least 0.5 % by weight in at least one organic solvent, from bis(halomethyl)arylenes which comprises base-induced dehydrohalogenation, wherein the reaction is carried out in the presence of 0.1-80 mol% of one or more compounds of the formula (I):



Formula (I)

where the symbols are defined as follows:

Aryl is the same or different at each instance and is a bivalent aromatic or heteroaromatic ring system which has from 2 to 40 carbon atoms and may be substituted by R<sup>1</sup> radicals or else be unsubstituted, or an R<sup>1</sup>-substituted or unsubstituted stilbenylene unit; the two substituents CHXR and CHYR are arranged in such a way that there is an even number of aromatic atoms between them; the aryl and heteroaryl systems may also be part of a larger fused aromatic ring system; the possible substituents R<sup>1</sup> may potentially be situated at any free position;

R is the same or different at each instance and is an alkyl chain which has from 1 to 40 carbon atoms and may be straight-chain, branched or cyclic, and may also be substituted by one or more R<sup>1</sup> radicals or be unsubstituted, in which one or more nonadjacent carbon atoms may also be replaced by -CR<sup>2</sup>=CR<sup>2</sup>-, -C≡C-, -NR<sup>2</sup>-, -O-, -S-, -CO-, -CO-O-, -CONR<sup>2</sup>-, -O-CO-O-, and one or more hydrogen atoms may also be replaced by fluorine, an aromatic or heteroaromatic ring system which has from 2 to 40 carbon atoms and may be substituted by R<sup>1</sup> or be unsubstituted, an R<sup>1</sup>-substituted or unsubstituted stilbenyl or tolanyl unit, -Si(R<sup>2</sup>)<sub>3</sub>, -N(R<sup>2</sup>)<sub>2</sub>, -OR<sup>2</sup> or a combination of these systems; the aryl and heteroaryl systems

may also be part of a larger fused aromatic ring system; the possible substituents may potentially be situated at any free position;

X is the same or different at each instance and is Cl, Br, I, trifluoromethanesulfonate or arylsulfonate;

Y is the same or different at each instance and is Cl, Br, I, trifluoromethanesulfonate, arylsulfonate or  $R^1$ ;

$R^1$  is the same or different at each instance and is a straight-chain, branched or cyclic alkyl chain having from 1 to 40 carbon atoms, in which one or more nonadjacent carbon atoms may also be replaced by  $-CR^2=CR^2-$ ,  $-C\equiv C-$ ,  $-NR^2-$ ,  $-O-$ ,  $-S-$ ,  $-CO-$ ,  $-CO-O-$ ,  $-CONR^2-$ ,  $-O-CO-O-$ , and one or more hydrogen atoms may be replaced by fluorine, an aromatic or heteroaromatic ring system which has from 2 to 40 carbon atoms and may also be substituted by one or more nonaromatic  $R^1$  radicals, a substituted or unsubstituted vinyl group or Cl, F, CN,  $N(R^2)_2$ ,  $B(R^2)_2$ ; the aryl and heteroaryl systems may also be part of a larger fused aromatic ring system; the possible substituents may potentially be situated at any free position; two or more  $R^1$  radicals together may also form a ring system;

$R^2$  is the same or different at each instance and is H, a straight-chain, branched or cyclic alkyl chain having 1 to 22 carbon atoms, in which one or more nonadjacent carbon atoms may also be replaced by  $-O-$ ,  $-S-$ ,  $-CO-O-$ ,  $-O-CO-O-$ , and one or more hydrogen atoms may also be replaced by fluorine, an aryl or heteroaryl system which has from 2 to 40 carbon atoms and may also be substituted by one or more nonaromatic  $R^1$ .

2. (Previously presented) The process as claimed in claim 1, wherein the halogen atoms in the bis(halomethyl)arylene monomers are the same or different and are each Cl, Br or I.
3. (Previously presented) The process as claimed in claim 1, wherein the polymerization is carried out in an ether, an aromatic hydrocarbon, a chlorinated aromatic compound or a mixture of these solvents.

4. (Previously presented) The process as claimed in claim 1, wherein the reaction is carried out in a concentration range from 0.005 to 5 mol/L (monomer/solution volume).
5. (Previously presented) The process as claimed in claim 1, wherein the bases used are alkali metal hydroxides, alkali metal alkoxides or organic amines or amides, or else alkali metal hydrides or metal organyls, provided that the solvents used are not DMSO, alcohols or chlorinated solvents.
6. (Previously presented) The process as claimed in claim 1, wherein the amount of the base used is in the range from 2 to 10 equivalents (based on one equivalent of monomer).
7. (Previously presented) The process as claimed in claim 1, wherein between 2 and 40 mol% (based on the total amount of the remaining monomers) of one or more compounds of the formula (I) is added.
8. (Previously presented) The process as claimed in claim 1, wherein for the compound of the formula (I):

Aryl is the same or different at each instance and is a bivalent aromatic ring system which has from 2 to 40 carbon atoms and optionally is substituted by up to 4 substituents  $R^1$  or else be unsubstituted, or an  $R^1$ -substituted or unsubstituted stilbenylene unit; the two substituents CHXR and CHYR are arranged in such a way that there is an even number of aromatic atoms between them; the aryl system optionally is part of a larger fused aromatic ring system; the possible substituents  $R^1$  may potentially be situated at any free position;

R is as defined in claim 1;

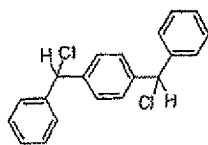
X is the same or different at each instance and is Cl, Br, I;

Y is as defined in claim 1;

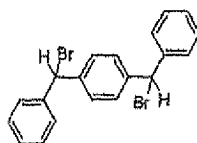
$R^1$  and  $R^2$  are each as defined in claim 1.

9. (Previously presented) The process as claimed in claim 8, wherein the compound of the formula (I) is selected from the formulae (II) to (XXV) which may be substituted or

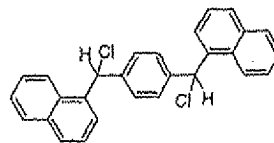
unsubstituted:



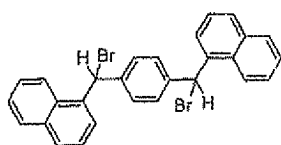
Formula (II)



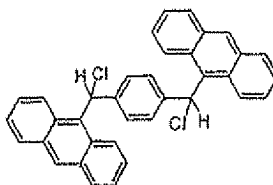
Formula (III)



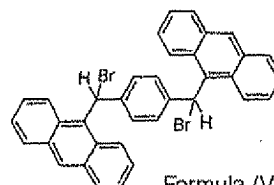
Formula (IV)



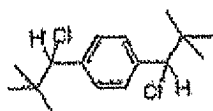
Formula (V)



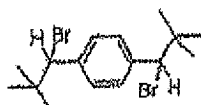
Formula (VI)



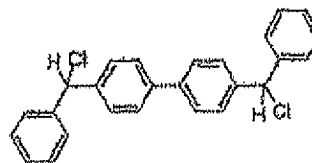
Formula (VII)



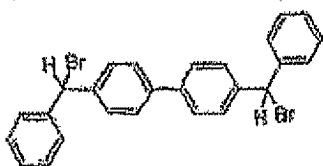
Formula (VIII)



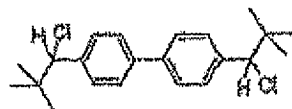
Formula (IX)



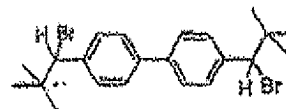
Formula (X)



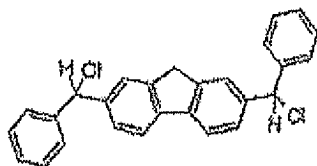
Formula (XI)



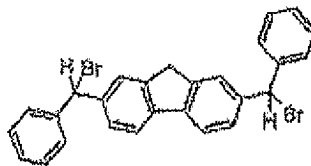
Formula (XII)



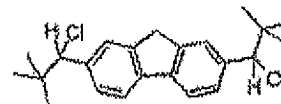
Formula (XIII)



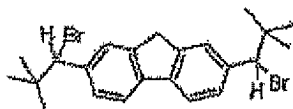
Formula (XIV)



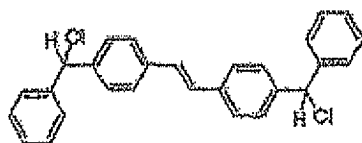
Formula (XV)



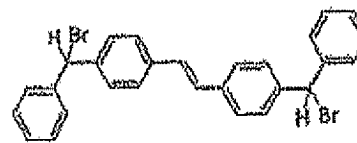
Formula (XVI)



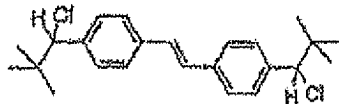
Formula (XVII)



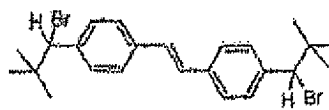
Formula (XVIII)



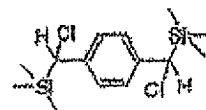
Formula (XIX)



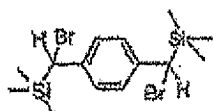
Formula (XX)



Formula (XXI)



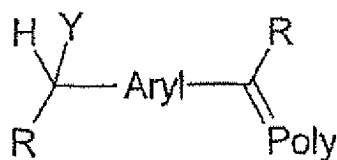
Formula (XXII)



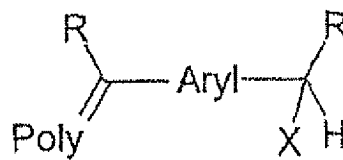
Formula (XXIII)

and

10. (Cancelled)
11. (Currently amended) Poly(arylenevinylenes), which have a solubility of least 0.5 % by weight in at least one organic solvent, containing at least 0.1 mol% of units of the formula (Ia) and/or (Ib)

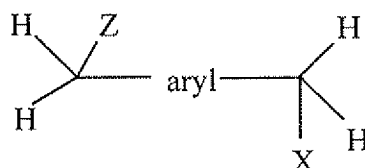


Formula (Ia)



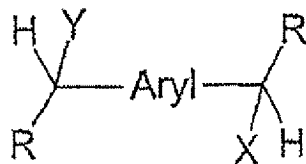
Formula (Ib)

obtainable from bis(halomethyl)arylenes which comprises base-induced dehydrohalogenation wherein the reaction is carried out by polymerization of monomers of the formula (XXVI)



Formula (XXVI)

in the presence of 0.1 – 80 mol% of one or more compounds of the formula (I):



Formula (I)

where the symbols in formula (I), (Ia), (Ib) and (XXVI) have the following meanings:

Aryl is on each occurrence, identically or differently, a divalent aromatic or

heteroaromatic ring system having 2 to 40 C atoms, which is optionally substituted by radicals  $R^1$ , or an  $R^1$ -substituted or unsubstituted stilbenylene unit; the two substituents CHXR and CHYR are arranged in such a way that there is an even number of aromatic atoms between them; the aryl and heteroaryl systems may also be part of a larger condensed aromatic ring system; the possible substituents  $R^1$  may potentially be situated at any free position;

R is on each occurrence, identically or differently, an alkyl chain having 1 to 40 C atoms, which may be straight-chain, branched or cyclic, and which, in addition, is optionally substituted by one or more  $R^1$  radicals, in which one or more nonadjacent carbon atoms is optionally replaced by  $-CR^2=CR^2-$ ,  $-C\equiv C-$ ,  $-NR^2-$ ,  $-O-$ ,  $-S-$ ,  $-CO-$ ,  $-CO-O-$ ,  $-CONR^2-$ ,  $-O-CO-O-$ , and one or more hydrogen atoms is optionally replaced by fluorine, an aromatic or heteroaromatic ring system which has from 2 to 40 carbon atoms and is optionally substituted by  $R^1$ , an  $R^1$ -substituted or unsubstituted stilbenyl or tolanyl unit,  $-Si(R^2)_3$ ,  $-N(R^2)_2$ ,  $-OR^2$  or a combination of these systems; the aryl and heteroaryl systems is optionally part of a larger condensed fused aromatic ring system; the possible substituents may potentially be in a free position;

X and Z are on each occurrence, identically or differently, Cl, Br, I, trifluoromethanesulfonate or arylsulfonate;

Y is on each occurrence, identically or differently, Cl, Br, I, trifluoromethanesulfonate, arylsulfonate, or  $R^1$ ;

$R^1$  is on each occurrence, identically or differently, a straight-chain, branched or cyclic alkyl chain having from 1 to 40 carbon atoms, in which one or more nonadjacent carbon atoms is optionally replaced by  $-CR^2=CR^2-$ ,  $-C\equiv C-$ ,  $-NR^2-$ ,  $-O-$ ,  $-S-$ ,  $-CO-$ ,  $-CO-O-$ ,  $-CONR^2-$ ,  $-O-CO-O-$ , and one or more hydrogen atoms is optionally replaced by fluorine, an aromatic or heteroaromatic ring system which has from 2 to 40 carbon atoms and optionally is substituted by one or more nonaromatic  $R^1$  radicals, a substituted or unsubstituted vinyl group or Cl, F, CN,  $N(R^2)_2$ ,  $B(R^2)_2$ ; the aryl and heteroaryl systems are optionally part of a larger

fused aromatic ring system; the possible substituents may potentially be situated at any free position; two or more  $R^1$  radicals together optionally form a ring system with one another;

$R^2$  is on each occurrence, identically or differently H, a straight-chain, branched or cyclic alkyl chain having 1 to 22 carbon atoms, in which one or more nonadjacent carbon atoms may also be replaced by -O-, -S-, -CO-O-, -O-CO-O-, and one or more hydrogen atoms may also be replaced by fluorine, an aryl or heteroaryl system which has from 2 to 40 carbon atoms and is optionally substituted by one or more nonaromatic  $R^1$  and

Poly represents a bond to a poly(arylenevinylene) main chain.

12. (Previously presented) Poly(arylenevinylenes) as claimed in claim 11, wherein the poly radical represents one or more poly(arylenevinylenes).
13. (Previously presented) Poly(arylenevinylenes) as claimed in claim 11, wherein the poly radical is a poly(arylenevinylene) homo- or copolymer which may optionally be substituted.
14. (Cancelled)
15. (Previously presented) An electronic component comprising cathode, anode and one or more active layers, at least one of these active layers comprising one or more poly(arylenevinylenes) as claimed in claim 11.
16. (Previously presented) The electronic component as claimed in claim 15, wherein it comprises polymeric light-emitting diodes (PLEDs), organic integrated circuits (O-ICs), organic field-effect transistors (OFETs), organic thin-film transistors (OTFTs), organic solar cells (O-SCs), organic photorefractive elements, organic light-emitting diodes (OLEDs) or organic laser diodes (O-laser).
17. (Previously presented) An electroluminescent material in polymeric light-emitting diodes (PLEDs) which comprises the poly(arylenevinylenes) as claimed in claim 11.

18. (Previously presented) An organic integrated circuit (O-IC), an organic field-effect transistor (OFET), an organic thin-film transistor (OTFT), a photorefractive elements, an organic solar cell which comprises the poly(arylenevinylenes) as claimed in claim 11.